

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appln. No: 10/575,227  
Applicant: M. KAWAI et al.  
Filed: April 7, 2006  
Title: SCANNER APPARATUS  
TC/A.U.: 2625  
Examiner: Ngon Binh Nguyen  
Confirmation No.: 6987  
Docket No.: SEI-120

**DECLARATION OF MR. MASAYOSHI KAWAI UNDER 37 C.F.R. 1.132**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

1. I, Masayoshi Kawai, am an inventor of the above-identified utility patent application.
2. I understand that claims of this application have been rejected by the Examiner based on U.S. Patent No. D514,575 to Sugitani et al. ("D514,575"), which claims the ornamental design of an image reader for a computer.
3. I understand that D514,575 issued from U.S. Application No. 29/189,758, which was filed on September 11, 2003 ("U.S. Filing Date"), and which claims priority of JP 2003-022949, which was filed on August 7, 2003 ("Foreign Priority Date").
4. To the extent that the invention conceived by me and the other inventors of this application is described in D514,575, our invention was made prior to the U.S. Filing Date of D514,575, and was thereafter described in D514,575 by the inventors of D514,575.

5. Together with the other inventors of this application, I prepared a Patent, Utility Model Application Request Paper ("Request Paper") before the U.S. Filing Date and before the Foreign Priority Date of D514,575. Copies of that Request Paper are attached to this Declaration as follows:
  - 5.1. A redacted copy of the Request Paper is attached as Exhibit 1.
  - 5.2. A redacted copy of an English-language translation of the Request Paper is attached as Exhibit 2, which lists my name and the names of the other inventors of this application under "Name of the Inventors."
6. The Request Paper illustrates and describes features of an image scanner apparatus, including embodiments of a scanner apparatus shown and described in the Request Paper (Exhibit 1) at, for example, Pages 2/5 and 4/5 and elsewhere.
7. The invention illustrated and described in the Request Paper was conceived before the U.S. Filing Date of D514,575.
8. As detailed in the following subparagraphs, the invention illustrated and described in the Request Paper was explained to inventors of D514,575.
  - 8.1. I, together with the other inventors of this application, attended a meeting with two inventors of D514,575 (Mr. Minoru Sugitani and Mr. Takeshi Chujou) after we prepared the Request Paper and before the U.S. Filing Date and the Foreign Priority Date of D514,575.
  - 8.2. The meeting was held at PFU Limited (the assignee of this application and the assignee of D514,575) in Ishikawa Prefecture of Japan.
  - 8.3. During the meeting I, together with the other inventors of this application, explained our invention to Mr. Minoru Sugitani and Mr. Takeshi Chujou using the Request Paper.
9. The inventors of the ornamental design claimed in D514,575 made no inventive contribution to the functional features claimed in this utility patent application.
10. Thus, to the extent that the invention claimed in this application is described in D514,575, the relevant subject matter of D514,575 describes my work and that of the other inventors of this application, was derived from us, and is not an invention "by another."

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name: Masayoshi Kawai

Signature: Masayoshi Kawai

Date: 6 / Dec / 2010

Exhibit 1 - Request Paper

Exhibit 2 - Translated Request Paper

1108525

# **EXHIBITS**

# **EXHIBIT 1**

譲渡証書				（※注1：氏名は世界標準ペンにて署名） （※注2：持分は他社と共有の場合はのみ記入、社内においては均等割）	
譲渡人 株式会社 ビーエフユー殿				受 付	
下記発明考案について国内外で特許、若しくは実用新案登録を受ける権利の全部を貴社に譲渡したことに相違ありません。 譲渡人 株式会社 ビーエフユー内				（担当）部長 部長・PM	
発明考案者氏名（注1）（印）				依頼元番号	
筆頭	朱肉印	社員コード	職階コード	発明日	
1	(印) 川井 政佳	386201	765702	開発製業	
		持分 (39.60%)	第二事業部 第一技術部 (7573 — 2243)	開発製品名	
2	(印) 金光 憲雄	799500	765700	実施状況	
		持分 (33.90%)	(7171 — 4630)	契約関係	
3	(印) 天海 民雄	772437	7771-4640	■1. なし □2. 共同開発 □3. 受託開発 □4. その他 締結先：■1. 単独 □2. 共有 □3. 社外 出願人：■1. P F U □2. 富士通 □3. その他 ( )	
4	( )			出願期限	
5	( )				
名称 イメージスキャナ装置				請求項（案）の数：3	
公知例調査 □知財Gと実施、□独自に実施（検索履歴を添付）、□未調査					

## 1. 目 的

本発明は、フラットベッド読取部と、ADF (Auto Document Feeder) を有するイメージスキャナ装置に関する。

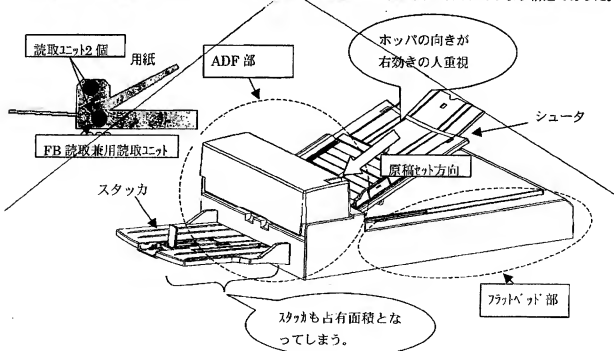
- ① 使用する設置環境に合わせ、装置の操作性を変化させることが可能な装置構造。
  - ② 装置の占有面積を小さくすることができる装置構造。
  - ③ ADF部、フラットベッド部といった様々なバリエーションを製造側が簡単に設定できること。
- 上記 ①、②、③の達成を目的とする。

## 2. 構 成

### 【当社の従来技術】

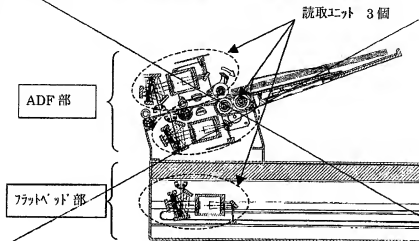
2つの読取ユニットを配備し、ADF使用時の両面読取及びフラットベッド使用時も兼用構造。

ADFは、装置左側に配備されているため、シュータへの原稿セットは、右利きの人は操作しやすいが、左利きの人には難しさがあった。また、装置の占有面積は、シュータの長さも入ってしまう構造であった。

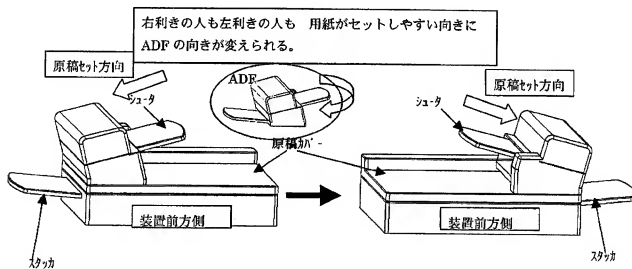


【本発明】

装置に、ADF部の読取ユニット2個 フラットベッド部の読取ユニット1個 計3個の読取ユニットを実装し、ADFユニットのみでも読取が行える構造とし、ADFユニットが装置原稿が上の任意の位置に配備でき、かつADFの向きを回転可能とする構造。

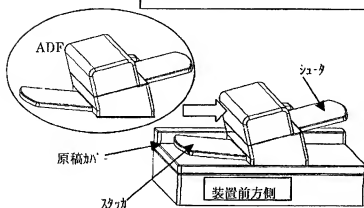


<<本発明の図 その1(目的①の部分)>>



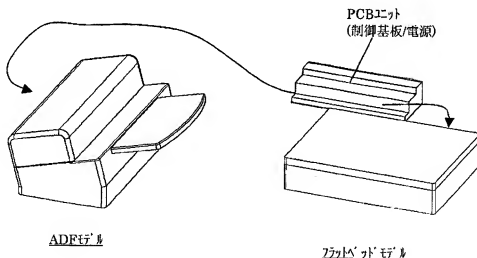
<<本発明の図 その2 (目的②の部分)>>

ADF を移動して原稿が - の中央に置けば シュタ / スタ込みで、最小の占有面積の形態。



<<本発明の図 その3 (目的③の部分)>>

本発明の装置構造によって、(3つの読取ユニットと ADF が自由に取り外し也能する形態であること。) ADF 部とフラットベッド部が独立してスタックとしての機能である、読取が行えるため、ADF モジュール / フラットベッド モジュール / ADF + フラットベッド モジュール といった 3 種のモジュールを製造側が新規に開発を行わずとも、簡単に準備することができる。  
 下図の絵は、ADF モジュールとフラットベッド モジュールを示した図であり、1 例として PCB ユニットをどちら側に搭載するかで 2 モジュールが簡単にできる図を示した。  
 当然、フラットベッド モジュールに ADF を搭載すれば、ADF + FB モジュールになる。

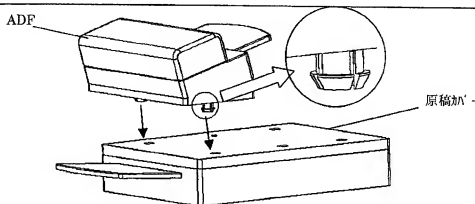




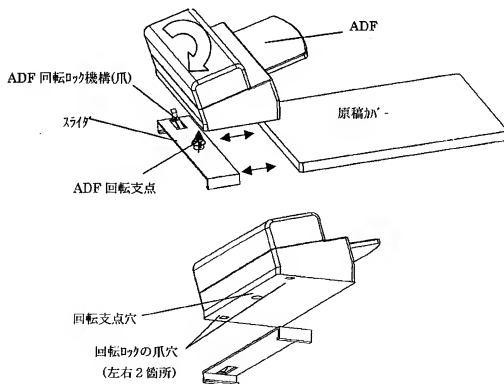
<<本発明の図 その4（目的達成技術）>>

下図の機構で原稿カバーとADFの接合を行う。

ADFユニット底面から突起（爪形状）を形成し、原稿カバーに配備した穴に差し込む機構。  
（向きも変えられる）

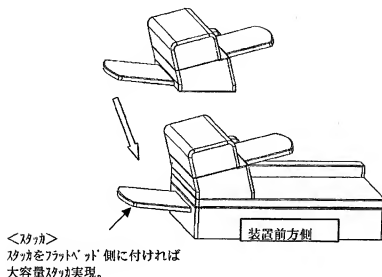


回転支点／爪を配備したスライダを 原稿カバーにレール機構で差込むことで左右に移動可能。  
また、スライダには回転支点があり、ADFの向きを変えることが可能。  
ADF向きの保持は、スライダに実装されたロック機構（爪）で行う。



原稿カバーとADFの接合機構図

<<本発明の図 その5 (追加効果)>>  
大容量スタッカにも対応可能。



### 3 【特許請求の範囲】

フラットベッド読取部と、ADF (Auto Document Feeder) を有するイメージスキャ装置で、以下の項目を請求の範囲とする。

1. イメージスキャ装置の原稿カバー上で、ADFユニットの向き、位置を自由自在に可変させる構造案。
2. ADFモジュール、フラットベッドモジュールといった様々なバリエーションモジュールを製造側が簡単に設定できる構造。
3. ADF に実装されているスタッカをフラットベッド側に付け替えることで、大容量スタッカにも対応可能な構造。

(本発明の図 その5)

## 1. 目的

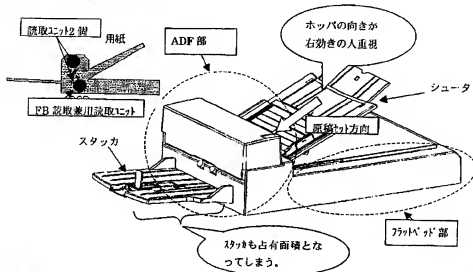
本発明は、フラットベッド読取部と、ADF (Auto Document Feeder) を有するイメージスキャナ装置に関し、

- ①. フラットベッド、ADFの同時読取りを可能にする。
  - ②. 装置の占有面積を小さくする。
  - ③. 使用する設置環境に合わせ、装置の操作性を変化させる。
- 上記3点の達成を目的とする。

## 2. 構成

### 【当社の従来技術】

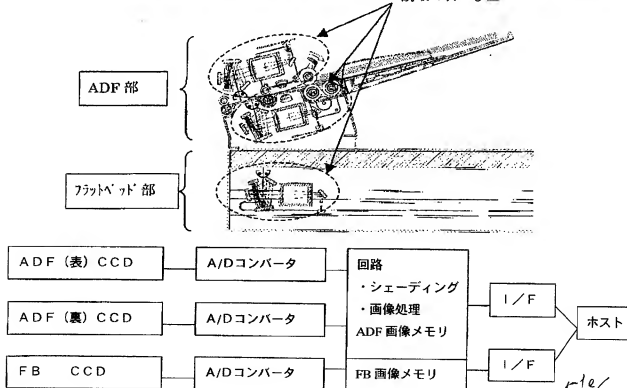
2つの読取りユニットを配備し、ADF使用時の両面読取り及びフラットベッド使用時も兼用構造。ADFは、装置左側に配備されているため、シュータへの原稿セットは、右利きの人は操作しやすいが、左利きの人には難しさがあつた。



### 【本発明】

装置に、ADF部の読取りユニット2個、フラットベッド部の読取りユニット1個、計3個の読取りユニット及び2つのインターフェースを実装し、ADF、FBの同時読取りが行える構造とし、ADFユニットが装置原稿カバー上の任意の位置に配備でき、かつADFの向きを回転可能とする構造。

読取ユニット 3個






# **EXHIBIT 2**

# PATENT, UTILITY MODEL APPLICATION REQUEST PAPER

Reception No.

03P00040

<b>ASSIGNMENT</b> Assignee: <u>PFU Limited</u> *ASSIGNEE has acknowledged the receipt of the assignment that the following ASSIGNORS hereby, sell, assign and transfer to ASSIGNEE the entire and exclusive right title and interest to the invention both at home and abroad. Assignor: <u>c/o PFU Limited</u>				IP Dept.  Dept. Chief  Sec. Chief 	
Name of the Inventors 筆頭 (氏名) Masayoshi Kawai 2 (氏名) Norio Kanemitsu 3 (氏名) Tamio Amagai 4 ( )		L.S. 印 386201 76502 Equity (34%) 799500 76500 Equity (33%) 772437 Equity (23%) 持分 ( ) % ( ) %		Employee Code 2nd Operation Dept. 1st Engineering Div. (7573 - 2243) 2nd Operation Dept. (7171 - 4630) 2nd Operation Dept., 1st Engineering Div. (7171 - 4640) (Expected) Number of claims : 3 請求項 (案) の数 : 3	
Title of the Invention: Image Scanner Apparatus Prior Art Search Originally Conducted Search History is attached 公知特許調査 <input type="checkbox"/> Conducted with 27 Group <input type="checkbox"/> 独自に実施 (検索履歴を添付) <input type="checkbox"/> Not Conducted				Reference Number Date of the Invention: Project Number: Project Name: Implementation Status: Contractual Relationship: ① Nothing 2. Joint Development 3. Entrusted Development 4. Other Belongs to: ① Solo 2. Joint 3. Outside Applicant: ① PFU 2. FUJITSU 3. Other Application Due Date	

## 1. OBJECTS

The present invention relates to an image scanner having a Flatbed-type scanning part and an ADF (Auto Document Feeder).

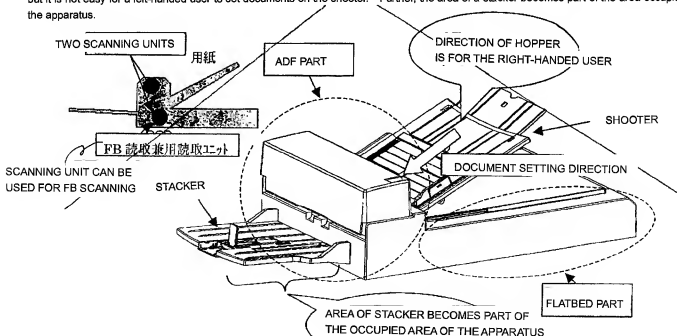
- ① Operability of the apparatus can be changed in accordance with the installation environment for using the apparatus.
  - ② An area occupied by the apparatus can be reduced.
  - ③ A wide variety of models, such as the ADF-model, the flatbed-model, etc., can be developed easily by a manufacturing department.
- The objects of the present inventions are to achieve the above three points.

## 2. CONFIGURATION

[Prior Art in Our Company]

Two scanning units are provided for the apparatus, and the two scanning units are used in both a both-side scanning in the operation of the ADF and a scanning in the operation of the Flatbed scanning part.

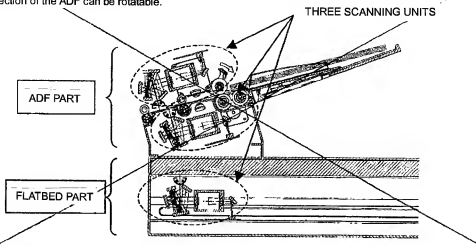
Since the ADF is provided at the left side of the apparatus, it is easy for a right-handed user to set documents on a shooter of the ADF, but it is not easy for a left-handed user to set documents on the shooter. Further, the area of a stacker becomes part of the area occupied by the apparatus.



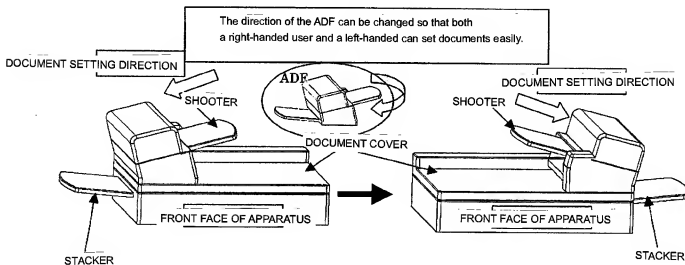
PFU LIMITED

[Present Invention]

Mechanism: Three scanning units (two scanning units in an ADF part and one scanning unit in a Flatbed scanning part) are mounted, so documents can be read only by using the ADF, the ADF can be mounted at an arbitrary portion on the surface of a document cover of the apparatus, and the direction of the ADF can be rotatable.



&lt;&lt;Figure 1 of the present invention (Regarding the object ①)&gt;&gt;



<<Figure 2 of the present invention (Regarding the object ②)>>

If the ADF is moved to the center position of the document cover, the area occupied by the apparatus including the shooter and the stacker can be minimized.

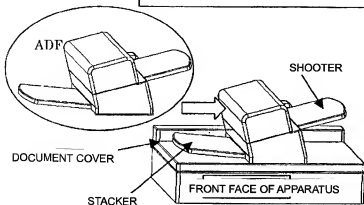
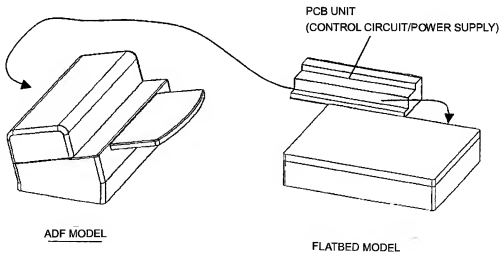


IMAGE FOR SHOWING THE APPARATUS WITH ITS DOCUMENTS COVER OPEN

<<Figure 3 of the present invention (Regarding the object ③)>>

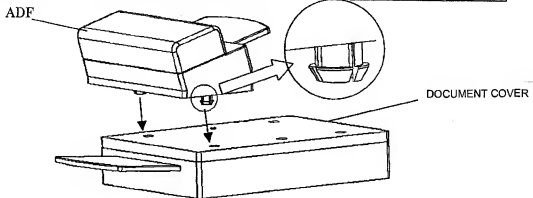
In accordance with the configuration of the present invention, three kinds of scanners including an ADF model, a Flatbed model and an ADF&Flatbed model can be prepared easily without any new research and development by the manufacturing department because the ADF part and the Flatbed part can read documents independently (and three scanning units and the ADF can be detachable from the apparatus freely). The following figures indicate the ADF model and the Flatbed model. Further, the figures suggest that two models can be prepared easily in accordance with the mounted position of a PCB unit (on the ADF model or on the Flatbed model). It is natural that the ADF&Flatbed model is prepared by mounting the ADF model on the Flatbed model.



<<Figure 4 of the present invention (Technology for achieving the object)>>

The document cover and the ADF are coupled by using a mechanism indicated in the following figures.

Mechanism: Coupling protrusions (nail-like shape) are provided on the bottom surface of the ADF unit and the coupling protrusions are inserted into holes provided on the document cover. (The direction of the ADF can be changed by using this mechanism.)



Mechanism: A rotatable pivot point and a nail are provided on a slider, and the slider is inserted into a rail mechanism of the document cover so that the slider is moveable to the left and right along the rail mechanism. The direction of the ADF can be changed by using the rotatable pivot point provided on the slider. The ADF is fixed by a rock mechanism (nail) provided on the slider so that the direction of the ADF is determined.

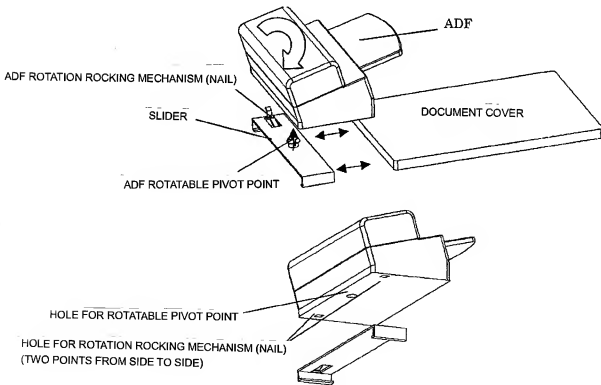
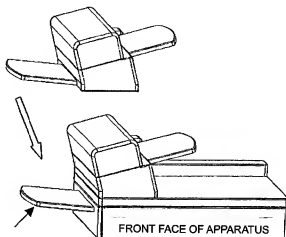


Figure for coupling mechanism between document cover and ADF



&lt;&lt;Figure 5 of the present invention (Additional effects)&gt;&gt;

The present invention is applicable to a large capacity stacker.



## &lt;STACKER&gt;

If the stacker is mounted on the Flatbed-type scanning part, the stacker can be used as a large capacity stacker.

## 3. CLAIM

An image scanner comprising a Flatbed scanning part and an ADF (Auto Document Feeder), and further including the following mechanisms:

1. The direction of the ADF can be changed freely on the surface of a document cover of the image scanner.
2. A wide variety of models, such as an ADF-model, a Flatbed-model, etc., can be developed easily by a manufacturing department.
3. The stacker can be used as a large capacity stacker if the stacker is replaced from the ADF to the Flatbed-type scanning part (please see figure 5 of the present invention).

# 1. OBJECTS

The present invention relates to an image scanner having a Flatbed-type scanning part and an ADF (auto-document feeder).

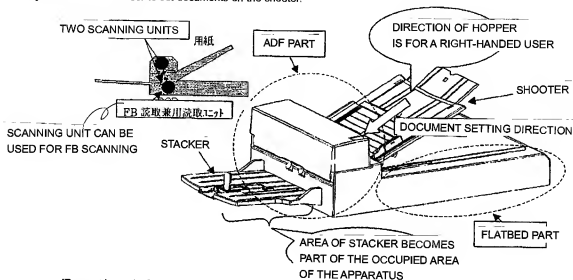
- ① Reading with the Flatbed-type scanning part and reading with the ADF can be performed simultaneously.
  - ② An occupied area of the apparatus can be reduced.
  - ③ Operability of the apparatus can be changed in accordance with the installation environment for using the apparatus.
- The objects of the present inventions are to achieve the above three points.

# 2. CONFIGURATION

[Prior Art in Our Company]

Two scanning units are provided for the apparatus, and the two scanning units are used in both a both-side scanning in the operation of the ADF and a scanning in the operation of the Flatbed scanning part.

Since the ADF is provided at the left side of the apparatus, it is easy for a right-handed user to set documents on a shooter, but it is not easy for a left-handed user to set documents on the shooter.



[Present Invention]

Mechanism: Three scanning units (two scanning units in an ADF part and one scanning unit in a Flatbed scanning part) and two interfaces are mounted, so reading with the Flatbed-type scanning part and reading with the ADF can be performed simultaneously, the ADF can be mounted at an arbitrary position on the surface of a document cover of the apparatus, and the direction of the ADF can be rotatable.

## THREE SCANNING UNITS

